



51 EAMES STREET, WILMINGTON, MA 01887

10/9/86
- Verbal approval to CN
- several minor changes

October 7, 1986

Mr. David C. Adams
Principal Sanitary Engineer
The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
5 Commonwealth Avenue
Woburn, Massachusetts 01801

Re: Gypsum Waste Landfill

Dear Mr. Adams:

As you know, Olin is preparing to remove calcium sulfate from our onsite Lagoons. This material will be placed in the above referenced landfill. Attached you will find a copy of the approved "Special Conditions" and also a preliminary drawing showing the anticipated final configuration of the landfill. Below you will find a summary of work to be accomplished during this operation:

<u>Procedure</u>	<u>Estimated Date</u>
Site Preparation in accordance with Special Conditions, Part A	October 13, 1986
Provide Engineering Certification that site is prepared in accordance with Part A	October 20, 1986
Commence cleanout of Lagoons	October 21, 1986
Complete Placement of Wastes in landfill	December 31, 1986
Initiate Final Closeout procedures (final grading of wastes, placement of cover and topsoil, etc.)	April-May 1987
Complete Closure and Provide Engineering Certification	November 1, 1987

All work conducted during this project will be in accordance with the "Gypsum Waste Landfill Special Conditions" as approved by the Massachusetts Department of Public Health, January 16, 1974. Consulting engineering support is being provided by E. C. Jordan Consulting Engineers, Portland Maine.

Mr. David C. Adams
Department of Environmental Quality Engineering

Since the amount of time remaining before winter is very short, we request your timely review and approval. Should you have any questions, please feel free to contact Mike Townley at 933-4240 or Carl Nelson at 615/336-4559.

Sincerely,

OLIN CORPORATION



Ronald J. McBrien
Plant Manager

RMc/rlg
Attachment

cc: Greg Erickson
Chester Bruce
Reginald Stapczynski

WILMINGTON PLANT

Gypsum Waste Landfill Special Conditions

A. PREPARATION

1. All trees and brush shall be cleared, chipped and stockpiled for future use. All tree stumps shall be buried offsite. There will be no open burning allowed!
2. All topsoil shall be stripped and stockpiled at the area indicated on the grading plan and shall be used for final grading upon final completion of landfill operations.
3. The area to be worked shall be graded to Elevation 84.0' (or to ledge if ledge is encountered) after clearing and stripping has been completed. All excess material shall be stockpiled adjacent to immediate working area in order that it may be used for cover after each yearly operation has been completed. All excess materials (topsoil, subsoil, granular materials, etc.) shall remain onsite.
4. All ditches, access roads and other appurtenances shown on the approved plans and all equipment needed for the operation shall be constructed, installed and obtained, respectively, before the landfill site is placed into operation.
5. All of the above mentioned shall be repeated for each Phase of Landfill Operation. The existing ground within the Phase II Area shall not be stripped until the available area in Phase I is filled and brought to the proper grade.

B. OPERATIONS PROCEDURES

1. The dewatered calcium sulfate cake shall be loaded onto trucks at the dewatering lagoons by the use of a clamshell crane or equivalent. Before a truck leaves the lagoon area, its tires shall be hosed off so as to minimize the depositing of excess waste material onto the public roadway enroute to the landfill site. This washing procedure should be repeated upon leaving the landfill site if conditions warrant it.
2. The access roadway shall be minimum of 25 feet wide so that trucks may move in, out and around the landfill site without any interruptions. The operator of the landfill site shall direct the trucks where to dump at the working face and keep records of the number of loads dumped daily. The entrance to the landfill shall have a six (6) foot high chainlink fence and gate (26' wide) across the entrance roadway and extend an additional ten (10) feet out on both sides of the roadway as shown on the final contract drawings.

The entrance gate to the landfill area shall be closed and locked at the end of each day's operation and at the completion of each year's operation.

3. A four foot (4') high snow fence shall be constructed around the perimeter of landfill area shown as Phases I, II and III on final contract drawings and a sign attached every 100' to the fence reading as follows: "DANGER, DO NO ENTER, PRIVATE PROPERTY."
4. An attendant or equipment operator must be on duty during landfill operations. No waste materials other than the dewatered calcium sulfate cake shall be hauled onto and dumped into the landfill area.

5. The waste material shall be dumped as close to the working face as possible; e.g., the sloping face along the easterly side of Phase I, without interfering with the spreading operation. The waste material shall be dumped and spread in layers to a depth not greater than four feet (4') unless, during actual operation, the characteristics of the waste material are such that lifts greater than four feet (4') could be accomplished without creating problems in handling and spreading.
6. The operation of the landfill shall be under the overall supervision and direction of an engineer or specialist qualified and experienced in the matter of solid waste disposal. The operations shall be inspected by this person on a weekly basis or even daily, if required. This person (or persons) shall be approved by the Board of Health and the name included on the permits issued by the Board.

C. TERMINATION OF PERIODIC LANDFILL OPERATIONS

1. A minimum of 6" cover material shall be spread over the entire section worked during that year's operation. This procedure may be waived by the Board of Health (both State and Local).
2. Adequate slopes and drainage swales must be constructed to minimize surface water runoff onto and into the fill area, to prevent erosion of the fill, to drain off rainwater falling on the fill and to prevent the collection of standing water.

3. A copy of all daily log sheets listing operational information such as quantity of waste received, equipment breakdown, the portion of the landfill in operation, etc., shall be submitted to the engineers supervising the operation for review and to further assist them in scheduling the following year's operation.
4. Upon completion of Phases I, II, and III of the landfill operations, the entire area as shown on the final grading plan shall be covered with nine (9) inches of cover material and a minimum of three (3) inches of topsoil. Final grading and drainage shall be constructed in accordance with final approved plans. Necessary measures shall be taken to assure that the final graded area be seeded with appropriate grasses to promote stabilization of the topsoil cover. On side slope, wood chips shall be spread after seeding to stabilize topsoil until the grass grows. The cover material shall be checked during the following year for cracks, erosion and settlement and all corrective repairs completed before the landfill area can be accepted as complete by the Approving Authorities.

Extracted from drawings approved January 16, 1984 by the Massachusetts Department of Public Health, Division of Sanitary Engineering.